

Rapid Development and Delivery of Army Distributed Learning Courseware

Dr. Connie S. Wardell
Director, Individual Training Support Directorate
Army Training Support Center
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Purpose

- To describe the challenges of developing and delivering Army distributed learning courseware in a timely manner
- To describe solutions now being applied
- To provide demonstrations of initiatives that may provide some breakthroughs in faster delivery
- To ask for recommended solutions and insights from the DL Subcommittee members

Challenge #1:

Army DL Is a Team Sport (the who)

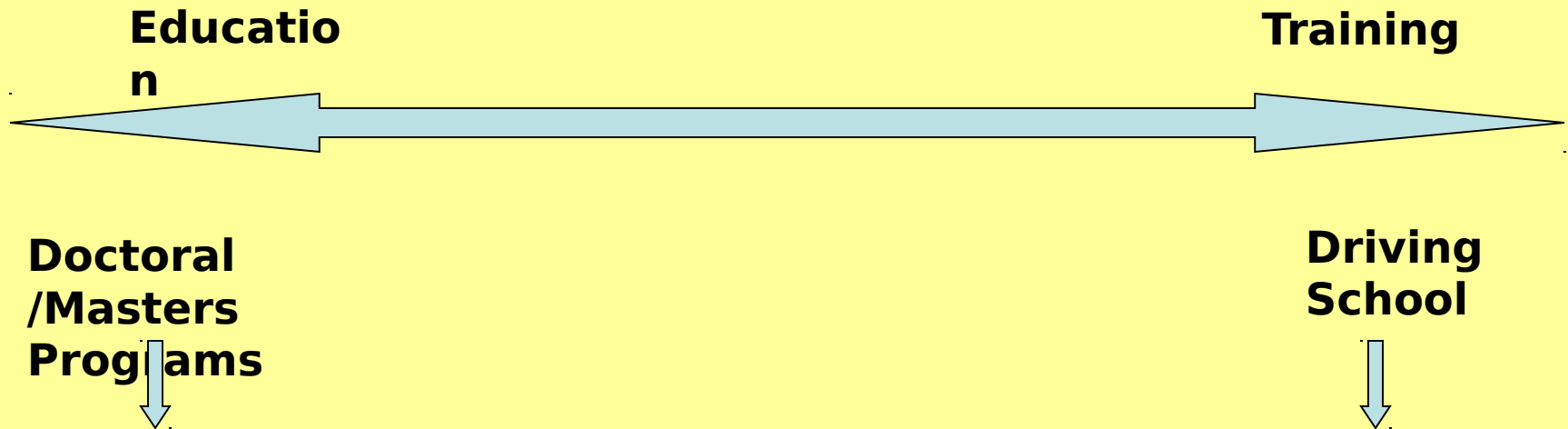
- All the following Stakeholders/Players must be in synch:
 - Proponent schools, like Field Artillery, Infantry
 - U.S. Army Reserves, U.S. Army National Guard, Forces Command
 - Contractors
 - Training and Doctrine Command HQs
 - TRADOC Program Integration Office-DL/Training Development and Delivery Directorate
 - TRADOC Operations and Manpower Activity
 - ATSC (Individual Training Spt, Training Information Systems)
 - Program Manager-Distributed Learning Systems

Solutions Being Worked

- **For Challenge #1: The players**
 - More coordination with all team members
 - Emails, websites for knowledge management, quarterly meetings on courseware in development
 - Capturing of processes so that all members understand what others are doing and what they need to do
 - Database tools that allow visibility for all courseware in development (DL Management Information System)
 - Templates and guidelines that allow those not familiar with DL to see what needs to be done
 - Workshops that focus on issues and how to solve them (with followup to share solutions)

Challenge #2: The DL Education vs Training Continuum (the what)

The Army must develop DL courseware that ranges along the entire length of this continuum.



**Army Professional Education Programs
(Leadership, Critical Thinking, Problem Solving)**

**Military Occupational Specialty
Qualification Courses, functional
courses, Advanced Individual Training
(hands-on skills)**

Solutions Being Worked

- **For Challenge #2: Education vs Training**
 - Design guidance has been worked and continues to be worked to assist all players in determining interactivity level for various types of content
 - Putting the level of interactivity within the Statement of Work (SOW) template, by hours of development
 - Refocusing the SOW template on the design rather than just on the technical
 - Simplifying hands-on simulations
 - Moving to role-playing and gaming for complex cognitive simulations
 - Providing instructional design educational opportunities for govt employees

Challenge #3: DL Does Not Have Total Acceptance (the why)

- Training vs education
- Proposed reductions in resident training time
- Lack of resources in the schools
- Lack of DL success stories within the Army

Solutions Being Worked

- **For Challenge #3: Acceptance of DL**
 - Resources being worked for schools
 - Instructor contact hours
 - Lifelong learning centers
 - Maintenance dollars for courseware
 - Transformation of the Army will require a greater reliance on DL
 - Gathering DL success stories for marketing

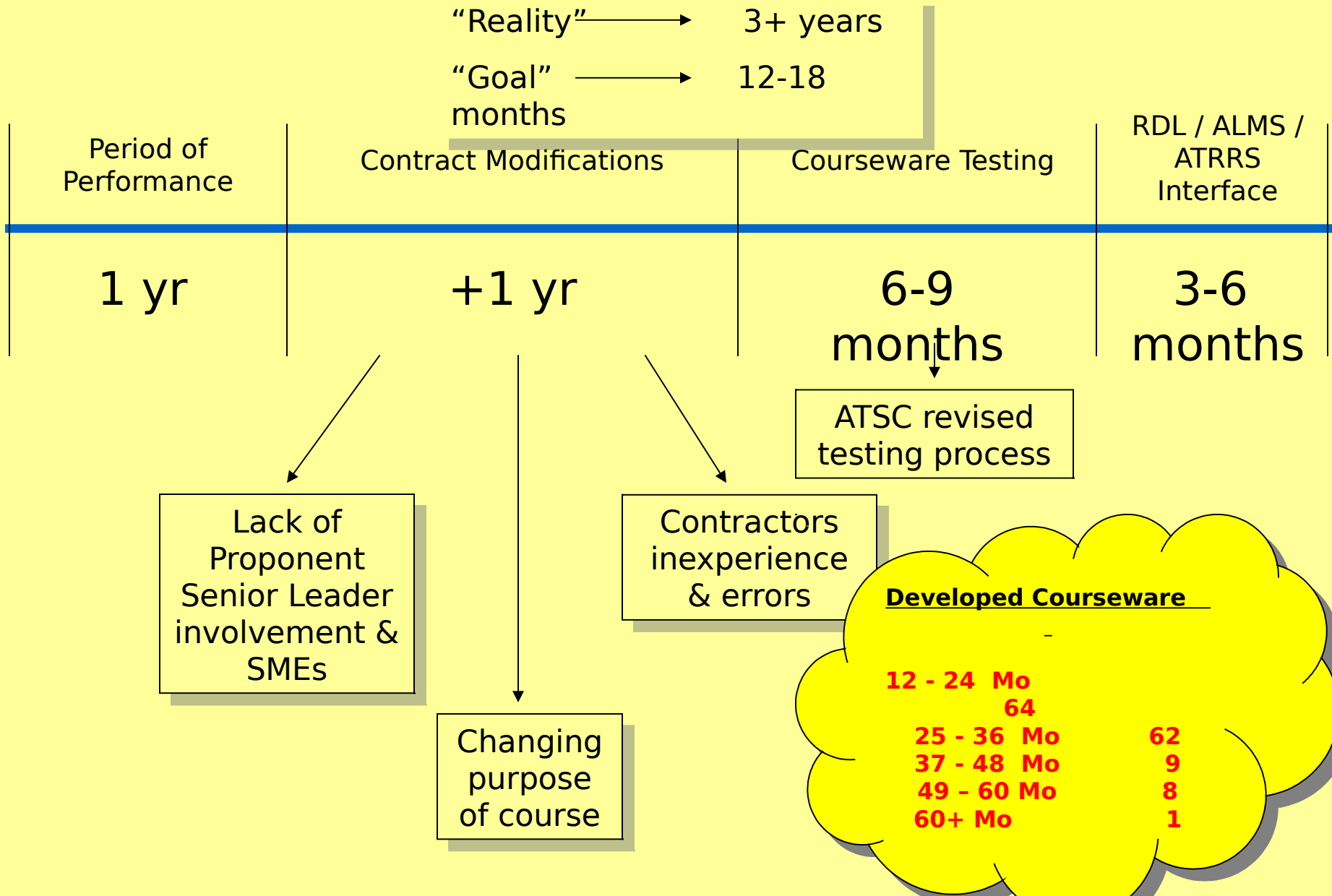
Challenge #4: DL Must Meet Technical Delivery Criteria from Numerous Sources (the how & where)

- Sharable Courseware Object Reference Model (SCORM) criteria
- The Army Distributed Learning Program
 - Playability
 - Classroom configurations
 - Learning Management Systems
- The Information Technology requirements for each installation/armory/classroom

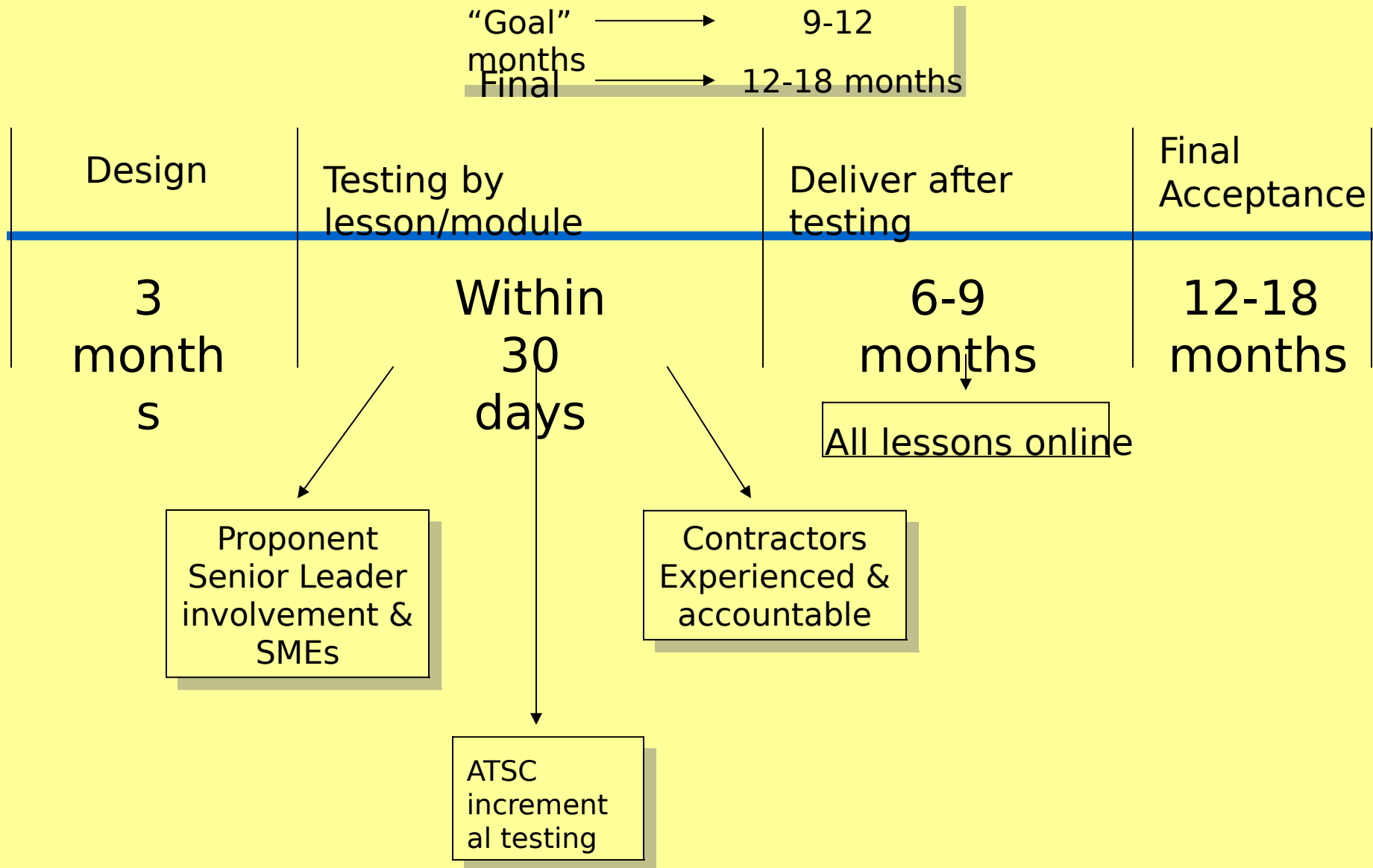
Solutions Being Worked

- **For Challenge #4: Technical delivery**
 - Conducting incremental testing (quality control)
 - Now require contractor to submit SCORM test logs verifying SCORM conformance
 - Working on incremental delivery processes
 - Continuing to use multiple entries into courseware until one entry available
 - Simplifying technical requirements by standardizing interface (standard graphic user interface, productivity tools)
 - Working proofs of principle to identify “how-to” factors for faster development
 - Task-based delivery
 - Rapid fielding to operational environments (e.g. Iraq)

TADLP Courseware Development Timeline

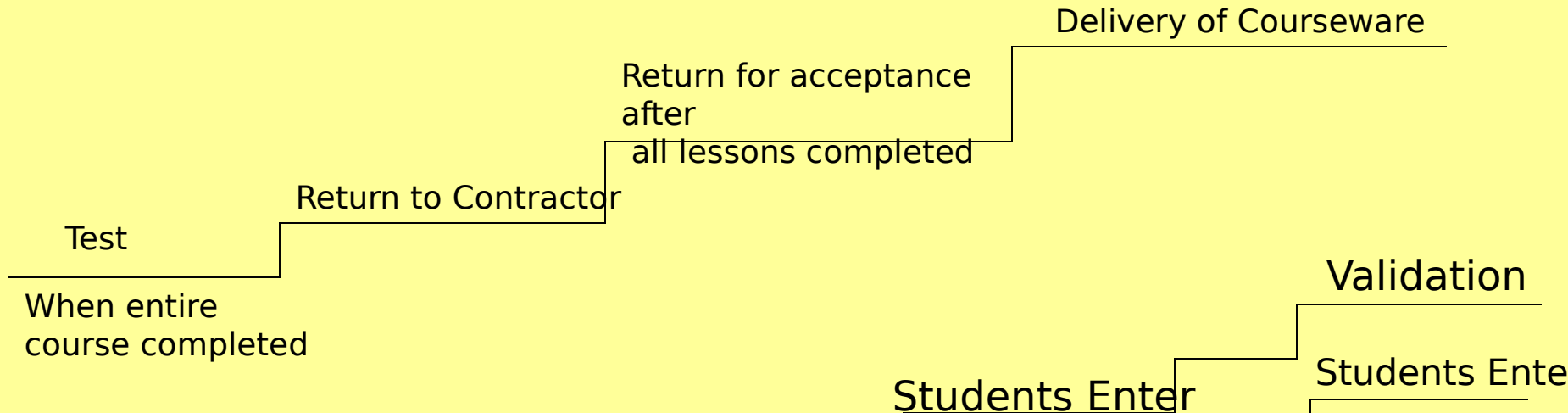


TADLP Spiral Development Timeline



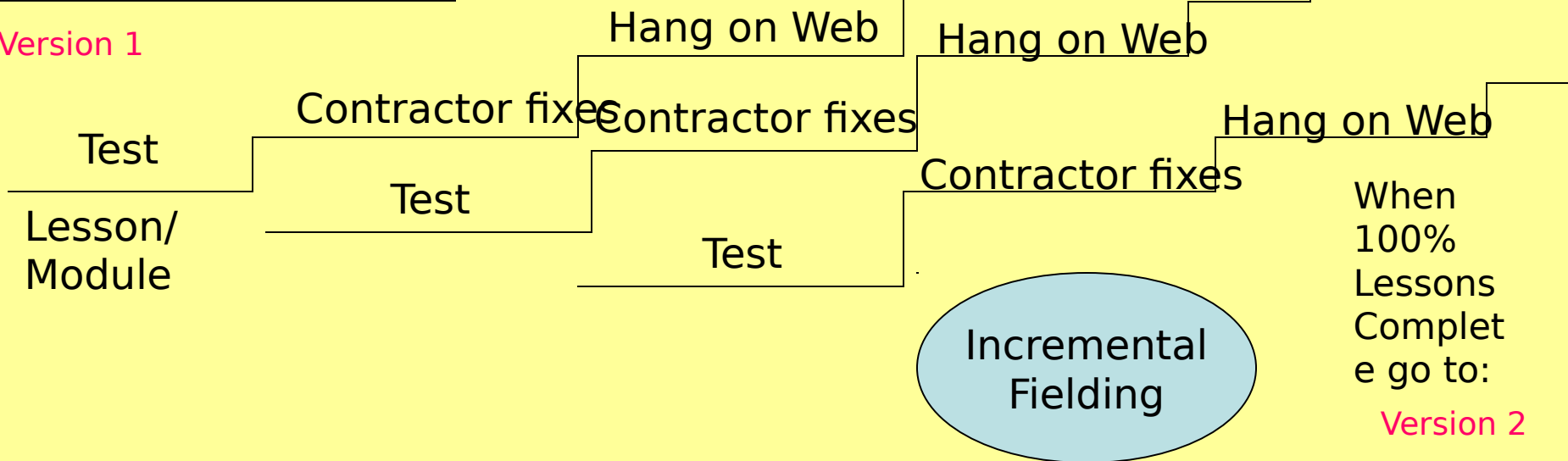
Development Process DL Courseware

PRESENT PROCESS

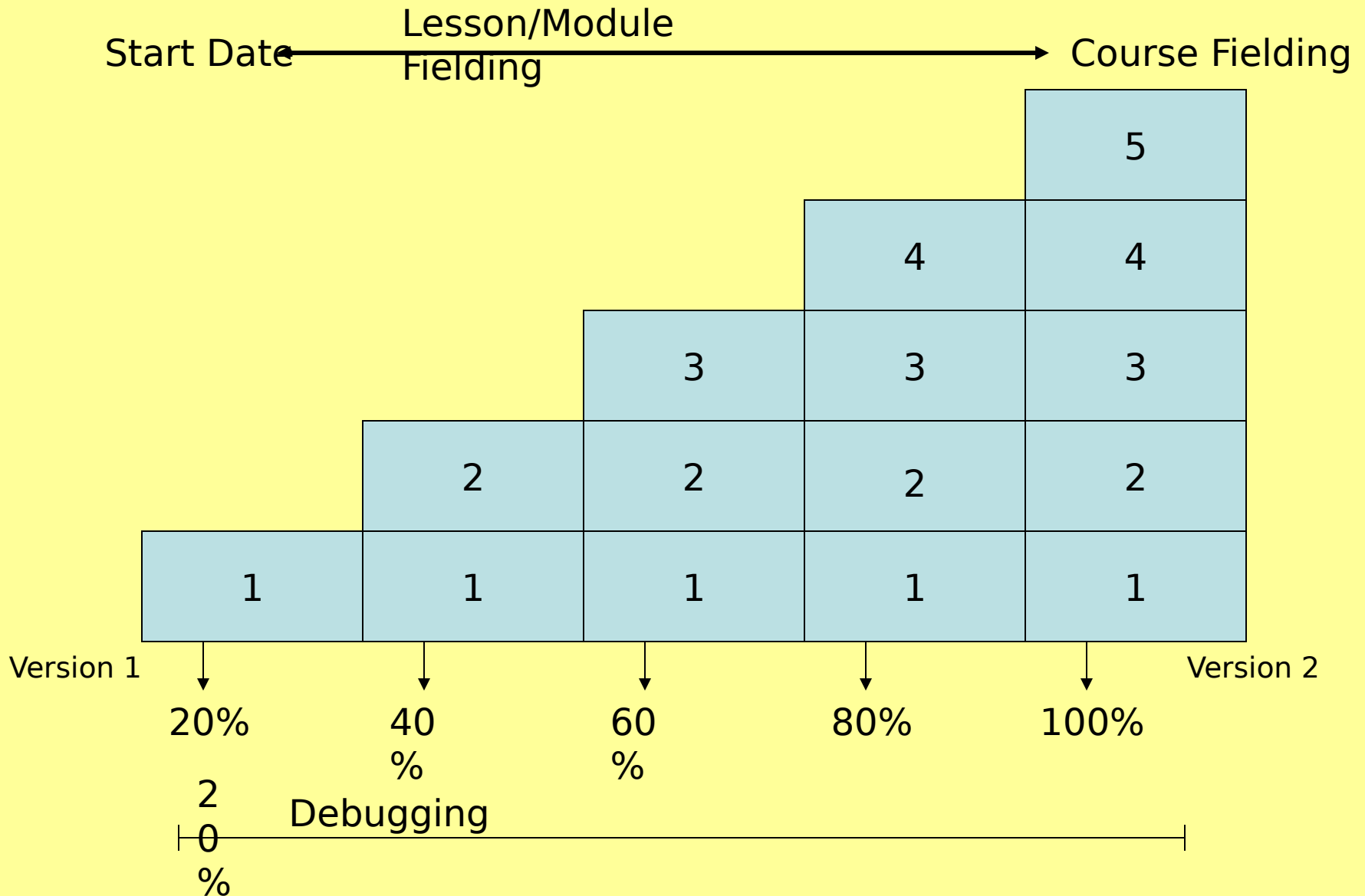


PROPOSED PROCESS

Version 1



Incremental Fielding Of DL Courseware



Incremental Testing and Delivery

- Issues/challenges:
 - Standardization requirements (acceptance by proponents—schools who own the content)
 - GUI, common look and feel, productivity tools
 - Bottlenecks within ATSC and contractors due to volume of lessons/tasks
 - 3 primes, 8-11 testers, 93 courses, just in FY05
 - Content validation vs technical validation
 - Most problems are technical: different LMSs, different SCORM standards,
 - Students “waiting” on next lesson
 - Establish protocol with LMS or school to notify students when next module is ready for entry
 - Students provided seats in “correct” resident phase
 - Enrollment database will need manual enrollments or changes in identification of phase lengths or protocols for “pilot” courses

Virtual Mobile Training Team Project Overview

Provide Soldiers around the world, particularly those serving in the Operational Army, with quickly deployable Virtual Mobile Training Team (VMTT) Products.

This VMTT Product is:

- A Proof-of-Concept for delivery in 90-days (contract awarded 30 Jun)
- Used the Stryker Vehicle Tire, as reference
- Based on tasks associated with Battle Damage Assessment and Repair (BDAR) of the Stryker tire
- A Blended Approach to train Soldiers at a distance
 - Asynchronous (Self-Paced)
 - Synchronous remote (Real-Time collaboration)

VMTT BDAR Components

Asynchronous (Self-Paced)

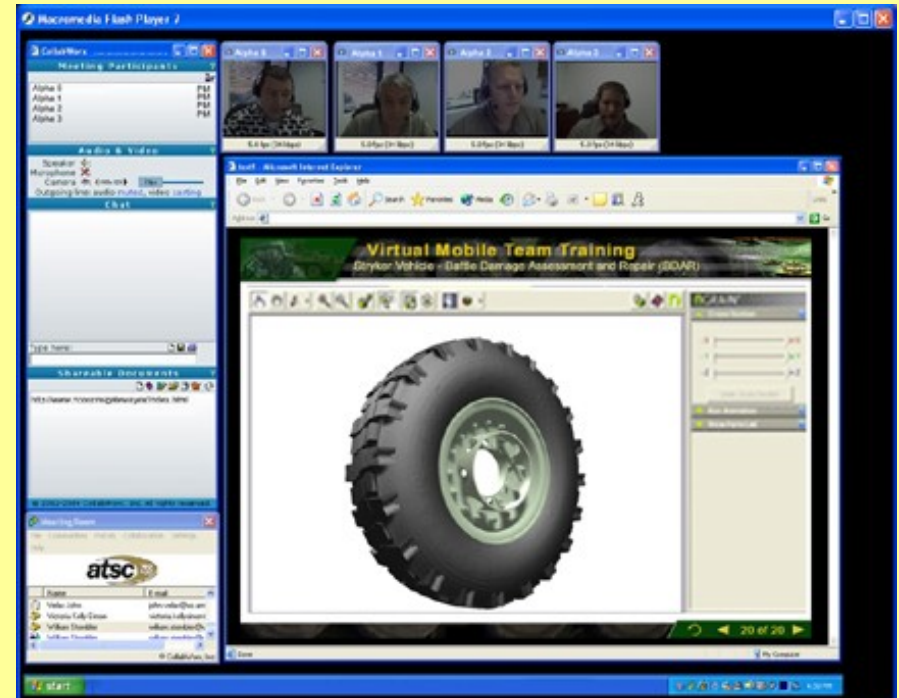
- Scenario driven, procedural information presented
- Checks-on-Learning to reinforce knowledge transfer
- 3D interactive learning objects to allow simulations
- Soldier progresses at own pace and path
- Submit for mastery test orientation or actual test at completion of self-paced

Synchronous (Real-Time)

- Conducted through TSS Reach (CollabWorx)
- Instructor available through office hours
 - Establish regular times to enable Soldiers to ask questions and get latest information
 - Multiple Soldiers can join and learn from each other
- Mastery Test
 - Instructor driven with scenarios
 - Soldier demonstrates mastery of the BDAR task using 3D objects
 - Instructor provides continuous feedback
 - GO/NO GO
 - Certificate of Completion sent to Commander for presentation



Asynchronous (Self-Paced)



Synchronous (Real-Time)

VMTT BDAR Validation

Conducted Validation (22 Sep 05)

- Iraq
 - Two Soldiers
 - Deployable Digital Training Classroom (16 Laptops)
- U.S. locations
 - Aberdeen Proving Grounds (APG), MD
 - BDAR Instructors
 - Two Soldiers (local hotel, provided laptops and webcams)
 - Ft Benning, GA
 - Two Soldiers (on post, provided webcams)
- Sequence
 - Collaborative Introduction
 - Complete Self-Paced segment
 - Attend collaborative instructor office hour segment (multiple Soldiers)
 - Conduct Individual Mastery Test segment
 - Certification of Completion

VMTT BDAR

Demonstration of Courseware

Demonstration

- Rapid development productivity tools
(Larry Helms, Maneuver Support
Center, Fort Leonard Wood, MO)

Questions?